

What Is Claimed Is:

1. A seal pattern of a liquid crystal display device, comprising:
a substrate having a plurality of unit cell regions;
a plurality of main seal patterns on the substrate, each main seal pattern being
5 formed at a boundary of a corresponding unit cell region except for one unit cell region;
and
a first sub-seal pattern surrounding all of the main seal patterns and having a
plurality of open portions.

10 2. The seal pattern according to claim 1, wherein the unit cell regions are
arranged with one of a plurality of columns and a plurality of rows.

15 3. The seal pattern according to claim 2, wherein the main seal pattern is
formed at a boundary of the one of a plurality of columns and a plurality of rows.

4. The seal pattern according to claim 1, further comprising a second sub-
seal pattern between the unit cell regions.

20 5. The seal pattern according to claim 1, wherein the open portions are in
the unit cell region having no main seal pattern.

6. The seal pattern according to claim 1, further comprising a plurality of
additional seal patterns at the open portion.

7. The seal pattern according to claim 6, wherein the additional seal patterns vent air in the unit cell region.

5 8. A method of forming a seal pattern of liquid crystal display device, comprising:

preparing a substrate having a plurality of unit cell regions;

forming a plurality of main seal patterns on the substrate, each main seal pattern being disposed at a boundary of a corresponding unit cell region except for one unit cell region; and

forming a first sub-seal pattern surrounding all of the main seal patterns and having a plurality of open portions.

9. The method according to claim 8, wherein the unit cell regions are arranged with one of a plurality of columns and a plurality of rows.

10. The method according to claim 9, wherein the main seal pattern is formed at a boundary of the one of a plurality of columns and a plurality of rows.

11. The method according to claim 8, further comprising forming a second sub-seal pattern between the unit cell regions.

12. The method according to claim 8, wherein the open portions are in the unit cell region having no main seal pattern.

13. The method according to claim 8, further comprising forming a plurality
5 of additional seal patterns at the open portion.

14. The method according to claim 13, wherein the additional seal pattern vent an air in the unit cell region.

10 15. The method according to claim 8, further comprising etching the substrate using an etchant.

16. The method according to claim 15, wherein the etchant is hydrofluoric acid.

15 17. A seal pattern of a liquid crystal display device, comprising:
a glass substrate having a plurality of unit cell regions;

a plurality of main seal patterns on the substrate, each main seal pattern being formed at a boundary of a corresponding one of the unit cell regions except for at least
20 one middle unit cell region;

a plurality of injection holes each formed at a lower center portion of a corresponding main seal pattern;

a first sub-seal pattern surrounding all of the main seal patterns and having a plurality of air vent portions;

a plurality of additional seal patterns for air ventilation each formed at a corresponding air vent portion; and

5 a second sub-seal pattern having a plurality of open portions.

18. The seal pattern according to claim 17, wherein the number of unit cell regions is at least 3.

10 19. The seal pattern according to claim 17, wherein the width of the plurality of seal patterns for air ventilation is about 1.5 to 2 mm.

15 20. The seal pattern according to claim 17, wherein the length of the plurality of seal patterns for air ventilation is about 70 to 100 mm.

21. The seal pattern according to claim 17, wherein the air vent portions are disposed on at least two inner sides of the at least one middle unit cell region.

20 22. A method of forming a seal pattern of liquid crystal display device, comprising:

preparing a glass substrate having a plurality of unit cell regions;

forming a plurality of main seal patterns on the substrate, each main seal pattern being disposed at a boundary of a corresponding unit cell region except for one middle unit cell region;

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forming a first sub-seal pattern surrounding all of the main seal patterns and having a plurality of air vent portions;

forming a plurality of additional seal patterns for air ventilation at each corresponding air vent portion; and

5 forming a second sub-seal pattern having a plurality of open portions.